

December 2020

PAPUA NEW GUINEA FOOD PRICE BULLETIN

We are pleased to share with you the first food price bulletin of a new quarterly series that will continue through 2022. Each quarter we will publish a food price bulletin that will provide up-to-date information on food prices in different markets across the country. Several Papua New Guinea (PNG) institutions and departments have been working together to construct a common database to provide real-time analysis of food prices and availability. This bulletin will help to inform early warning systems for food supply shortages due to unforeseen shocks (such as weather anomalies, pest infestations, COVID-19, etc.), as well as enhance knowledge on current food market conditions, emerging issues, and opportunities for greater market competitiveness and efficiency. The focus of these bulletins will be on select staple and fresh produce price trends.

PNG has a diverse agricultural food system that reflects its bio-diverse ecosystem. The National Statistical Office (NSO) and the Fresh Produce Development Agency (FPDA) have been collecting data on food prices to inform the Consumer Price Index (CPI) calculation and to communicate important price information to farmer producers. This bulletin utilizes information from the markets where FPDA has been collecting food prices with a focus on food prices in 2019 - 2020. Future bulletins will also integrate information collected from market traders via a market trader survey. The International Food Policy Research Institute (IFPRI), in collaboration with the National Research Institute (NRI), will work in tandem to analyze quarterly market trader information to enhance the food price bulletin to include analysis of key market issues including supply and logistics chain information and market performance.

SUMMARY

Prices of major food staples in Kokopo, Lae and Port Moresby have remained broadly stable over 2019 and 2020. The exceptions are prices of sweet potatoes and cooking bananas in Port Moresby, which declined between mid-2019 and the third quarter of 2020.

Per kilogram prices of vitamin-dense foods such as broccoli, carrot and karakap are typically higher than prices of starchy staples. Prices of both carrots and broccoli in Lae rose in mid-2020, but have declined in the last quarter of 2020 and October prices were close to their price levels in late 2019.

More consistent and timely price data collection and database management is necessary for informative food market analysis. Price data reported in this bulletin by crop and market is limited to 10 observations (at most) out of a possible of 24 fortnights in 2019. The rate of price data reporting has been lower in 2020, in part due to Covid-19 related disruptions.

Data collection at the Fresh Produce Development Agency

Collecting time-series food price data at the market requires patience, consistency and accuracy. FPDA collects prices of approximately 30 food items in 5 markets (Port Moresby, Lae, Mt. Hagen, Goroka, and Kokopo) every fortnight on Friday. This requires going to the market and interacting with different traders to weigh and record the price of each food item. Like most food markets across the world, food items are not sold in conventional kilogram units so enumerators must carefully record the weight of each item to convert non-conventional weights to comparable kilogram unit prices. It is important that price data are collected on at least a fortnightly basis in order to track price changes within the market over time, hence enumerators must go to the market in the rain, sun, heat or cold to collect this important information.

Over the last several years there have been disparate attempts to collect price data and build a time-series database in PNG. Lack of funding, organization or political will has resulted in lapses of price data collection. Along with the publication of this quarterly bulletin, a training program is being established to support more comprehensive and consistent data collection and database management with the goal of providing quick analysis of important issues that may arise and present a food security threat in the future.

Table 1 shows the number of price observations that were collected by the FPDA during 2019 and 2020 across different markets. Assuming that data collection happens on a fortnightly basis, each food item should have at least 24 observations per market per year (2 data points per month per market). However, at times, certain food items may not be present in the market or data collection wasn't comprehensively recorded. In 2020, the COVID-19 pandemic resulted in food market closures as well as non-essential services and employment disruptions to slow potential disease spread.

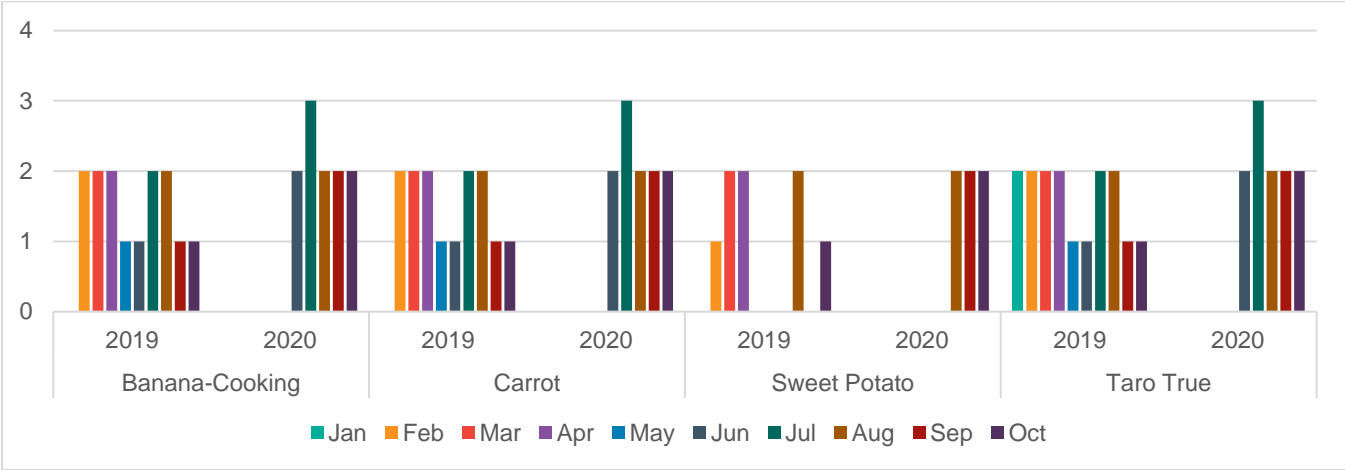
Table 1: Number of price observations by crop and year in 2019-2020 in FPDA markets

	Karakap (Dark leafy green)	Pawpaw (Papaya)	Carrot	Potato	Sweet Potato	Taro True	Cooking- banana
2019							
Goroka	3	3	8	5	6	3	3
Kokopo	10	10	0	0	10	10	10
Lae	9	10	10	10	7	10	10
Hagen	0	0	1	6	5	0	0
Port Moresby	4	10	9	9	10	9	10
2020							
Goroka	5	4	6	6	6	3	6
Kokopo	6	6	0	0	6	6	6
Lae	6	6	6	6	5	6	6
Hagen	6	6	6	6	6	6	6
Port Moresby	2	5	6	6	6	6	6

Source: Fresh Produce Development Agency (FPDA) market retail price database. *Note: Observations greater than 3 standard deviations above or below the median 5-year price per crop and market have been removed (40 out of 3,657 total observations of all crops and markets were removed, approximately 1.08 percent of total observations in 2019-2020).

Figure 1 shows the number of price observations collected per month by crop type for selected crops in Lae market in 2019-2020. A lapse in data collection occurred from November 2019 through May 2020 where no market data on any crops were collected from any markets. Given that there are no data for the months prior to implementing the social distancing measures related to COVID-19, it is impossible to clearly assess how COVID-19 market closures or transportation challenges may have affected food prices during this time. Similarly, we are unable to evaluate with certainty how policy measures to improve access to food in urban areas (such as the food freight subsidy) may have affected food prices in different markets across the country.

Figure 1: Number of price observations by crop and month in 2019-2020 in Lae market

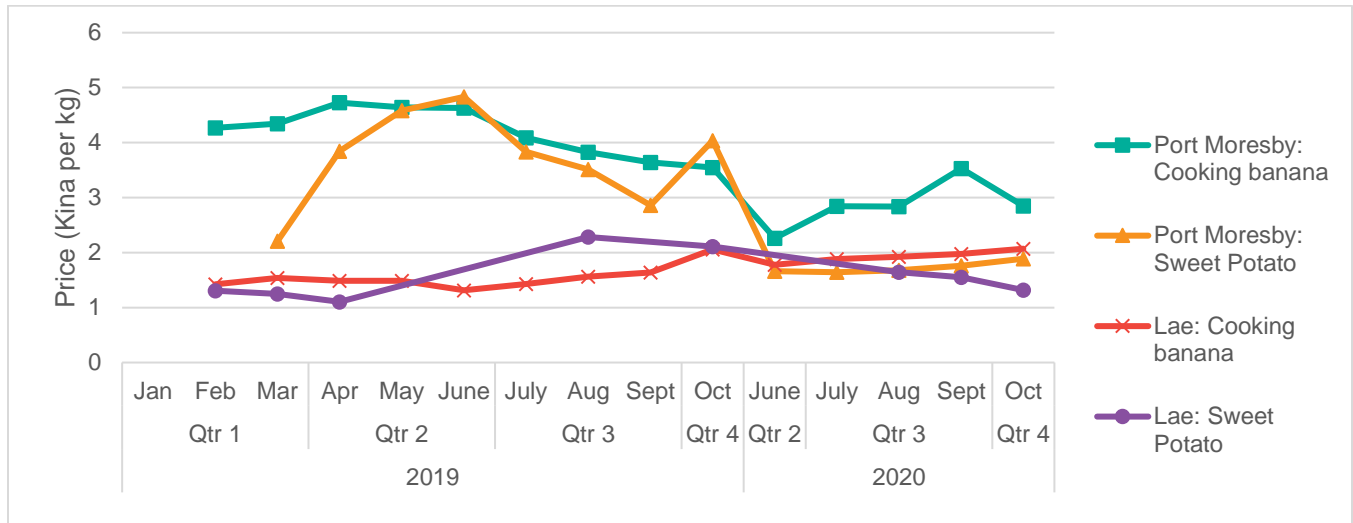


Source: Fresh Produce Development Agency (FPDA) market retail price database.

Staple crop prices

Evaluating staple crop prices over time between the two major metro food markets of Lae and Port Moresby underlines the increased transport cost of shipping goods to the Port Moresby food markets. Figure 2 shows the prices of cooking banana and sweet potato in Lae and Port Moresby from February 2019 through October 2020 (note that quarter 4 of 2019 and quarter 1 of 2020 are missing data values, and thus the x axis of the graph is condensed). While both cooking banana and sweet potato in Lae averaged 1-2 kina per kg over all months in 2019-2020, prices in Port Moresby of the same staple crops fluctuated between 3-4 kina for the last two quarters of 2019. Sweet potato and cooking banana prices significantly dropped in June 2020. This may be due to the freight transport subsidy aimed at easing food freight costs to the capital due to income (job losses) and price (increasing food prices) effects related to social distancing measures to curb COVID-19 spread between regions and in urban areas. Since the second quarter of 2020, sweet potato prices have held stable (between 1.5-2 kina/kg) in both Lae and Port Moresby, while cooking banana price increased slightly in Port Moresby.

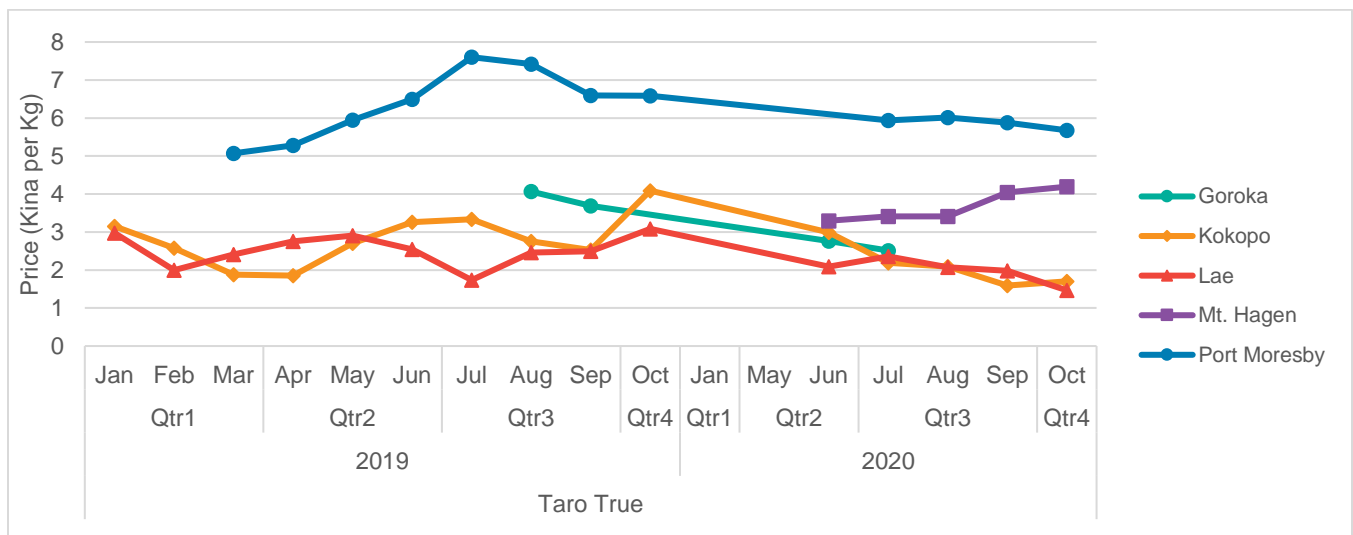
Figure 2: Prices of sweet potato/kg and cooking banana/kg in Port Moresby and Lae



Source: Fresh Produce Development Agency (FPDA) market retail price database.

Taro is another important staple for populations across PNG. While sweet potato prices declined from October 2019 to June 2020 (potentially related to the food freight subsidy aimed to decrease urban food prices), taro prices have remained relatively stable across all markets (Figure 3). However, the freight subsidy may have influenced taro prices via avoiding a major price spike in Port Moresby, where prices have remained stable around 6 kina / kg. Price per kilogram of taro is lowest in Kokopo and Lae markets, averaging between 1-2 kina per kg during the 3rd and 4th quarter of 2020. Goroka taro price per kg tracked consistently with Kokopo and Lae markets between the 3rd quarter of 2019 and the 2nd quarter of 2020. There are no price data for taro in Goroka market for the last quarters of 2020. In Mt. Hagen, the taro price has increased slightly from about 3.3 kina/kg in the 3rd quarter of 2020 to (on average) 4 kina/kg in October (previous 2019 prices of taro in Mt. Hagen market are not available).

Figure 3: Taro* price / kg across 5 major markets in PNG

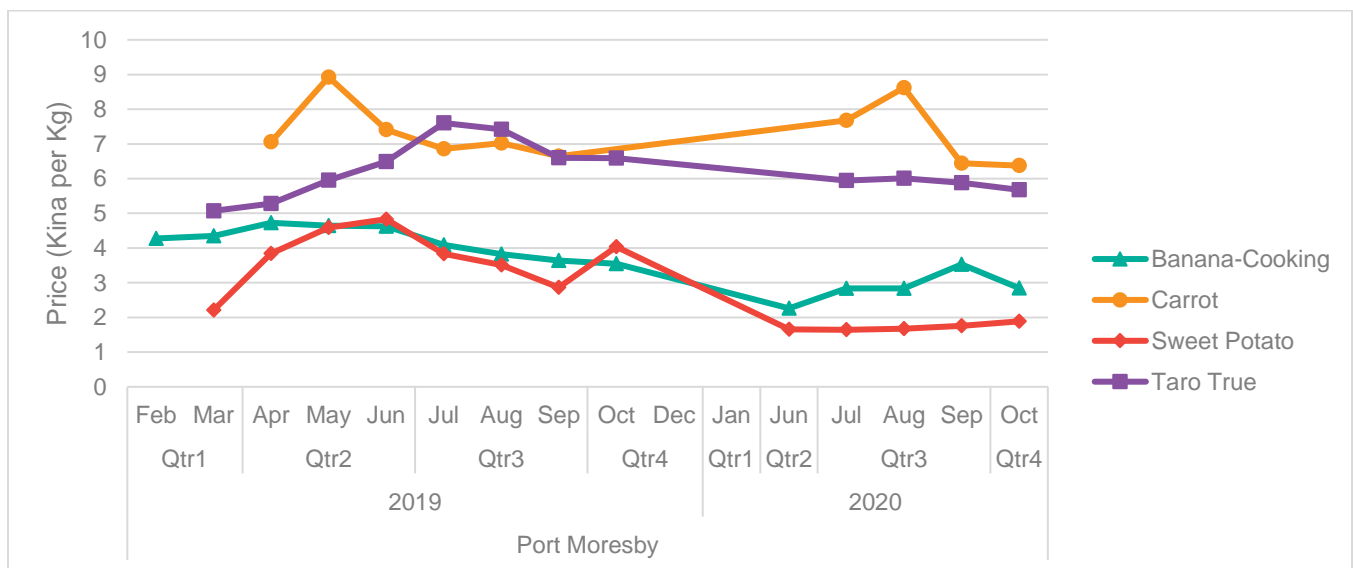


Source: Fresh Produce Development Agency (FPDA) market retail price database. *Note: Taro refers to 'True Taro' and does not include Chinese Taro.

Comparing staple food prices with vitamin-dense food prices

COVID-19 had a larger effect on urban populations (compared to rural households) via job loss, business and manufacturing closures, increased imported food prices and limitations of movement of people and goods within the country. Based on the above discussion, food prices are significantly higher in Port Moresby compared to other markets in the country due to transportation and logistics costs of moving produce from the highlands directly to Port Moresby via air transportation, or from the highlands to Lae and then via shipping vessels to Port Moresby. The least expensive staple crops available in the Port Moresby market currently are sweet potato and cooking banana (Figure 4). In comparison, taro is almost 3 times more expensive than sweet potato in Port Moresby. Carrot, a more vitamin-rich food, is 3 times more expensive than sweet potato and twice the price of cooking banana in Port Moresby.

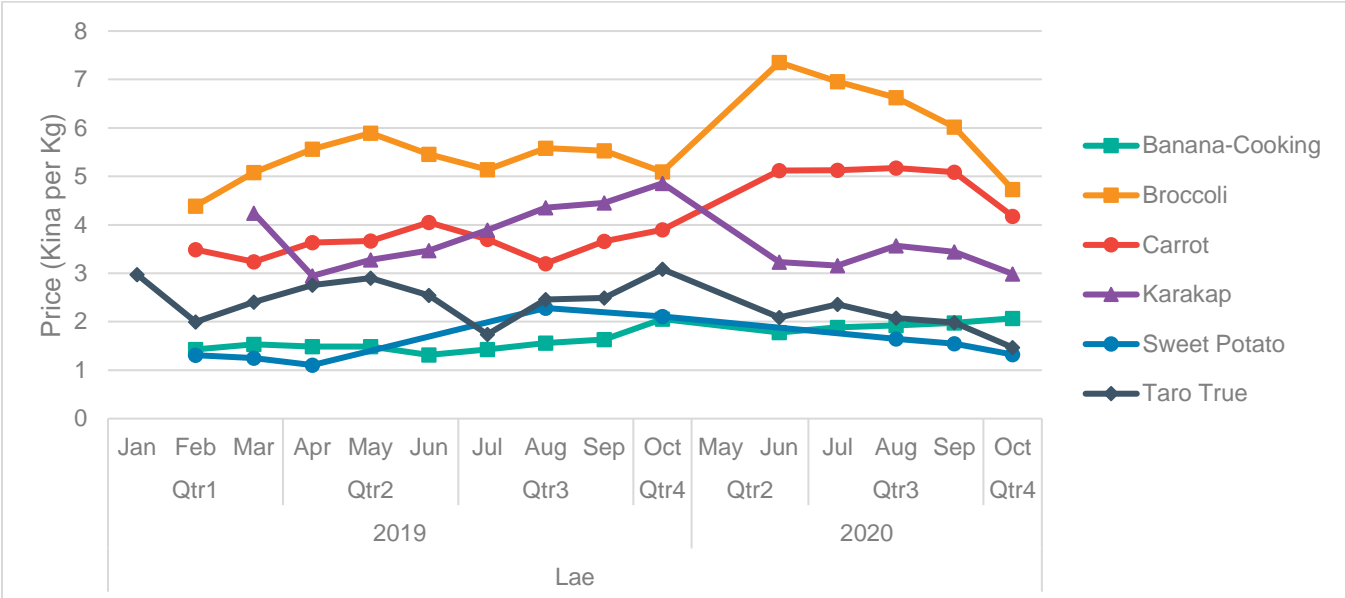
Figure 4: Price / kg of select staple and vegetable crops in Port Moresby (2019-2020)



Source: Fresh Produce Development Agency (FPDA) market retail price database.

Vitamin dense foods are more expensive compared to staple foods in most countries. We investigate the price difference between vitamin-dense foods and staple foods over the last 2 years focusing on the Lae food market. Comparing broccoli, carrot and karakap (a dark leafy green vegetable) with staples such as cooking banana, sweet potato and taro, data suggest that the price per kilogram of broccoli and carrot are 2-3 times more expensive than staple crops (Figure 5). For poor urban households or those that have faced income declines due to COVID-19 measures, the current difference in the price of vitamin-dense foods versus staple foods may make a nutritious meal cost prohibitive. In addition, imported rice prices in Vietnam and Thailand have increased due to social distancing and trade protectionist policies, which may also be affecting urban household food budgets significantly.

Figure 5: Price of select staple and vegetable crops in Lae market (2019-2020)



Source: Fresh Produce Development Agency (FPDA) market retail price database.

The next bulletin will build from this publication to provide updated price data for the remainder of 2020 and the first months of 2021. As we move forward, we will update this analysis and identify other areas of price and market analysis that will help to inform policy and monitor food security across the country. Please do not hesitate to reach out to us with any questions or comments about this bulletin or future food price bulletins.

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